

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Arbogast et al. Confirmation No.: 6754

Serial No.: 10/661,032

Filing Date: September 11, 2003

Examiner: To be assigned

Group Art Unit: 1616

For: MULTIVALENT CONSTRUCTS FOR THERAPEUTIC AND
DIAGNOSTIC APPLICATIONS

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Date: JULY 8, 2005
 Signature: C. Caggiano
 Carrie L. Caggiano

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicants respectfully submit this *Information Disclosure Statement* pursuant to 37 C.F.R. §§ 1.97 and 1.98 in order to comply with the duty of disclosure under 37 C.F.R. § 1.56. These references are listed on the attached modified PTO Form No. 1449. A copy of each of the listed references are enclosed for the convenience of the Examiner.

This *Information Disclosure Statement* is being mailed before the mailing date of the first Office Action on the merits, and thus, pursuant to 37 C.F.R. § 1.97(b), Applicants respectfully request that the information be expressly considered during the prosecution of this application and that the references be made of record therein and appear among the "References

Cited" on any patent to issue therefrom. Applicants further request that a copy of the PTO Form No. 1449, appropriately initialed by the Examiner, be returned to Applicants' attorneys.

No fees are believed to be due in connection with the filing of this *Information Disclosure Statement*. However, the Director is authorized to charge any fees due, or credit any overpayments, to Deposit Account No. 50-0540.

Dated: July 8, 2005

Respectfully submitted,

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Based on Form PTO-1449
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LIST OF REFERENCES CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANTS
Arbogast et al.

O I P E
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GROUP ART UNIT
1614

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
AA	2,913,451	11-17-59	De La Mater et al.			
AB	5,861,301	6-19-99	Terman et al.			
AC	5,766,860	6-16-98	Terman et al.			
AD	6,204,011	3-20-01	Kendall et al.			
AE	6,359,115	3-19-02	Kendall et al.			
AF	6,146,657	11-14-00	Unger et al.			
AG	6,071,495	6-6-00	Unger et al.			
AH	5,773,024	6-30-98	Unger et al.			
AI	5,769,080	6-23-98	Unger et al.			
AJ	6,261,535	7-17-01	Thorpe et el.			
AK	6,051,230	4-18-00	Thorpe et al.			
AL	5,885,866	1-5-99	Thorpe et al.			
AM	US2003/0023046	1-30-03	Ferrara et al.			
AN	US2002/0098187	7-25-02	Ferrara et al.			
AO	5,935,820	8-10-99	Hu et al.			
AP	US2003/0091567	5-13-03	Alitalo et al.			
AQ	6,521,211	2-3-99	Unger et al.			
AR	6,221,839	4-24-01	Alitalo et al.			
AS	6,245,530	6-12-01	Alitalo et al.			
AT	6,403,088	6-11-02	Alitalo et al.			
AU	6,645,933	11-11-03	Alitalo et al.			
AV	6,576,608	6-10-03	Lee et al.			
AW	6,451,764	9-17-02	Lee et al.			
AX	6,361,946	3-26-02	Alitalo et al.			
AY	6,331,289	12-18-01	Klaveness et al.			
AZ	6,261,537	7-17-01	Klaveness et al.			
AAA	6,264,917	7-24-01	Klaveness et al.			
AAB	US2002/0001566	1-3-02	Rajopadhye et al.			
AAC	US2002/0015680	2-7-02	Harris			
AAD	6,322,770	11-27-01	Rajopadhye et al.			
AAE	US2003/0180305	9-25-03	Rajopadhye et al.			
AAF	US2002/0065218	5-30-02	Achen et al.			
AAG	US2002/0102260	8-1-02	Achen et al.			
AAH	US2001/0038842	11-8-01	Achen et al.			
AAI	US2001/0031485	10-18-01	Backer et al.			
AAJ	6,689,352	2-10-04	Achen et al.			
AAK	US2003/0082103	5-1-03	Wartchow et al.			
AAL	US2002/0068697	6-6-02	Tournaire			
AAM	US2003/0176674	9-18-03	Rosen et al.			
AAN	US2002/0086013	7-4-02	King			
AAO	US2002/0091082	7-11-02	Aiello			
AAP	US2004/0033949	2-19-04	Bunting			
AAQ						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	BA	WO 03/018797	06/03/03	WO			
	BB	WO 02/060950	8-8-02	WO			
	BC	WO 96/40285	12-19-96	WO			
	BD	WO 03/080653	02/10/03	WO			
	BE	WO 01/70681	27/09/01	WO			
	BF	WO 02/06789	24/01/02	WO			
	BH	WO 94/10202	5-11-94	WO			
	BI	EP 1238986	9-11-02	EP			
	BJ	WO 97/09427	3-13-97	WO			
	BK	WO 97/17422	5-15-97	WO			
	BL	WO 98/18501	5-7-98	WO			
	BM	WO 98/18498	5-7-98	WO			
	BN	WO 98/47541	10-29-98	WO			
	BO	WO 99/29861	6-17-99	WO			
	BP	WO 99/40947	8-19-99	WO			
	NQ	WO 99/58162	11-18-99	WO			
	BR	WO 00/27414	5-18-00	WO			
	BS	WO 00/45856	8-10-00	WO			
	BT	WO 01/42284	6-14-01	WO			
	BU	WO 01/54723	8-2-01	WO			
	BV	WO 01/62942	8-30-01	WO			
	BW	WO 01/64235	9-7-01	WO			
	BX	EP 1259248	12-15-04	EP			
	BY	WO 01/70945	9-27-01	WO			
	BZ	WO 01/70268	9-27-01	WO			
	BBA	WO 01/83693	11-18-01	WO			
	BBB	WO 01/82870	11-18-01	WO			
	BBC	WO 01/97850	12-27-01	WO			
	BBD	EP 1166798	1-2-02	EP			
	BBE	EP 1166799	1-2-02	EP			
	BBF	WO 02/07747	1-31-02	WO			
	BBG	WO 02/057299	7-25-02	WO			
	BBH	WO 02/083849	10-24-02	WO			
	BBI	WO 03/028643	4-10-03	WO			
	BBJ	WO 02/028895	4-11-02	WO			
	BBK	WO 03/094617	11-20-03	WO			
	BBL	WO 92/14748	9-3-92	WO			
	BBM	JP 3398382	2-14-03	JP			

OTHER PUBLICATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

	CA	Gestwicki, J.E.; Cairo, C.W.; Strong, L.E.; Oetjen, K.A. and Kiessling, L. L. Influencing Receptor-Ligand Binding Mechanisms with Multivalent Ligand Architecture. <i>J. Am. Chem. Soc.</i> 2002, 124, 14922-14933.
	CB	Jackson, D. C. ; Fitzmaurice, C. J.; Brown, L. E.; Zeng, W. Preparation and properties of totally synthetic immunogens. <i>Vaccine</i> 1999, 18, 355-361.
	CC	Ben-Yedidia, T.; Arnon, R. Design of peptide and polypeptide vaccines. <i>Current Opinion in Biotechnology</i> 1997, 8, 442-448.
	CD	Mammen, M.; Choi, S-K; and Whitesides, G.M. Polyvalent interactions in biological systems: Implications for design and use of multivalent ligands and inhibitors. <i>Angew. Chem. Int. Edn. Engl.</i> 1998, 37, 2754-2794.
	CE	Pillai et al., "A novel and flexible method for preparation of peptide homo- and heterodimers functionalized with affinity probes, reported molecules and chelating ligands"
	CF	Pillai et al, "A Flexible Method for Preparation of Peptide Homo- and Heterodimers Functionalized with Affinity Probes, Chelating Ligands and Latent Conjugating Groups"

	CG	O'Brien-Simpson, N. M.; Ede, N. J.; Brown, L. E.; Swan, J.; Jackson, D. C. Polymerization of Unprotected Synthetic Peptides: A View toward Synthetic Peptide Vaccines. <i>Journal of the American Chemical Society</i> 1997, 119, 1183-1188.
	CH	A general review : Sadler, Kristen; Tam, James P. Peptide dendrimers: applications and synthesis. <i>Reviews in Molecular Biotechnology</i> 2002, 90(3-4), 195-229.
	CI	Futaki, S. Creation of ion channel function using synthetic peptides. (1998) <i>Yuki Gosei Kagaku Kyokaishi</i> 56, 125-133.
	CJ	Loffet, A. Q. Peptides as drugs: is there a market? In: <i>Peptides: The Wave of the Future</i> , Proceedings of the Second International and the Seventeenth American Peptide Symposium, San Diego, CA, United States, June 9-14, 2001; Lebl, M., and Houghten, R. A. Eds.; American Peptide Society: San Diego, Calif. 2001; pp. 214-216.
	CK	De Villiers, M. M., Liebenberg, W., Malan, S. F., and Gerber, J. J. (2000) Solubilization of poorly water soluble non-steroidal anti-inflammatory drugs at low pH with N-methylglucamine. <i>S. Afr. Pharmazie</i> , 55, 544-546.
	CL	Bajusz, S. (2003) Peptide related drug research. <i>J. Pept. Sci.</i> 9, 321-332.
	CM	Souriau, C., and Hudson, P. J. (2001) Recombinant antibodies for cancer diagnosis and therapy. <i>Expert Opin. Biol. Ther.</i> 1, 845-855.
	CN	Mammen, M., Choi, S-K., and Whitesides, G. M. (1998) Polyvalent interactions in biological systems: Implications for design and use of multivalent ligands and inhibitors. <i>Angew. Chem., Int. Edn.</i> 37, 2754-2794.
	CO	Gestwicki, J. E., Cairo, C. W., Strong, L. E., Oetjen, K. A., and Kiessling, L. L. (2002) Influencing Receptor-Ligand Binding Mechanisms with Multivalent Ligand Architecture. <i>J. Am. Chem. Soc.</i> 124, 14922-14933.
	CP	Tam, J. P., Lu, Y-A., and Yang, J-L. (2002) Antimicrobial Dendrimeric Peptides. <i>Eur. J. Biochem.</i> 269, 923-932.
	CQ	Liu, S., Edwards, D. S., Ziegler, M. C., Harris, A. R., Hemingway, S. J., and Barret, J. A. (2001) ^{99m} Tc-Labeling of Hydrazinonicotinamide-Conjugated Vitronectin Receptor Antagonist Useful for Imaging Tumors. <i>Bioconjugate Chem.</i> 12, 624-629.
	CR	Hillairet de Boisferon, M., Raguin, O., Dussaillant, M., Rostène, W., Barbet, J., and Gruaz-Guyon, A. (2000) Enhanced Targeting Specificity to Tumor Cells by Simultaneous Recognition of Two Antigens. <i>Bioconjugate Chem.</i> 11, 452-460.
	CS	Schaffer, L., Brissette, R. E., Spetzler, J. C., Pillutla, R. C., Østergaard, S., Lennick, M., Brandt, J., Fletcher, P. W., Danielsen, G. M., Hsaio, K-C., Andersen, A. S., Dedova, O., Ribel, U., Hoeg-Jensen, T., Hansen, P.H., Blume, A.J., Markussen, J., and Goldstein, N.I. (2003) Assembly of High Affinity Insulin Receptor Agonists and Antagonists from Peptide Building Blocks. <i>Proc. Natl. Acad. Sci. U.S.A.</i> 100, 4435-4439.
	CT	Jackson, D. C., Fitzmaurice, C. J., Brown, L. E., and Zeng, W. (1999) Preparation and properties of totally synthetic immunogens. <i>Vaccine</i> 18, 355-361.
	CU	Ben-Yedidya, T., and Arnon, R. (1997) Design of peptide and polypeptide vaccines. <i>Curr. Opin. Biotechnol.</i> 8, 442-448.
	CV	O'Brien-Simpson, N. M., Ede, N. J., Brown, L. E., Swan, J., and Jackson, D. C. (1997) Polymerization of Unprotected Synthetic Peptides: A View toward Synthetic Peptide Vaccines. <i>J. Am. Chem. Soc.</i> 119, 1183-1188.
	CW	Chen, H., Holl, M-B., Orr, B. G., Majoros, I., and Clarkson, B. H. (2003) Interaction of dendrimers (artificial proteins) with biological hydroxyapatite crystals. <i>J. Dent. Res.</i> 82, 443-448.
	CX	Sal-Man, N., Oren, Z., and Shai, Y. (2002) Preassembly of membrane-active peptides is an important factor in their selectivity toward target cells. <i>Biochemistry</i> 41, 11921-11930.

	CY	Lucke, A. J., Tyndall, J. D. A., Singh, Y., and Fairlie, D. P. (2003) Designing supramolecular structures from models of cyclic peptide scaffolds with heterocyclic constraints. <i>J. Mol. Graphics Modell.</i> 21, 341-355.
	CZ	Mutter, M. and Tuchscherer, G. (2000) Evolution versus design: template-directed self-assembly of peptides to artificial proteins (TASP). <i>Chimia</i> 54, 552-557.
	CCA	Todorovska, A., Roovers, R.C., Dolezal, O., Kortt, A. A., Hoogenboom, H. R., and Hudson, P. J. (2001) Design and Application of Diabodies, Triabodies and Tetraabodies for Cancer Targeting. <i>J. Immunol. Methods</i> 248, 47-66.
	CCB	Veprek, P. and Jezek, J. (1999) Peptide and glycopeptide dendrimers. Part I. <i>J. Pept. Sci.</i> 5, 5-23.
	CCC	Veprek, P. and Jezek, J. (1999) Peptide and glycopeptide dendrimers. Part II. <i>J. Pept. Sci.</i> 5, 203-220.

	CCD	A general review: Sadler, K. and Tam, J. P. (2002) Peptide dendrimers: applications and synthesis. <i>Rev. Mol. Biotechnol.</i> 90, 195-229.
	CCE	Hunter, C. L., and Kochendoerfer, G. G. (2004) Native Chemical Ligation of Hydrophobic Peptides in Lipid Bilayer Systems <i>Bioconjugate Chem.</i> 15, 437-440.
	CCF	Thumshirn, G., Hersel, U., Goodman, S. L., and Kessler, H. (2003) Multimeric cyclic RGD peptides as potential tools for tumor targeting: Solid-phase peptide synthesis and chemoselective oxime ligation. <i>Chem.—Eur. J.</i> 9, 2717-2725.
	CCG	Merkx, R., Rijkers, D. T. S., Kemmink, J., and Liskamp, R. M. J. (2003) Chemoselective coupling of peptide fragments using the Staudinger ligation. <i>Tetrahedron Lett.</i> 44, 4515-4518.
	CCH	Tam, J.P., Yu, Q., and Yang, J-L. (2001) Tandem Ligation of Unprotected Peptides through Thiaprolyl and Cysteinyl Bonds in Water. <i>J. Am. Chem. Soc.</i> 123, 2487-2494.
	CCI	Offer, J., Boddy, C. N. C., and Dawson, P. E. (2002) Extending Synthetic Access to Proteins with a Removable Acyl Transfer Auxiliary. <i>J. Am. Chem. Soc.</i> 124, 4642-4646.
	CCJ	Dawson, P.E. and Kent, S.B.H. (2000) Synthesis of Native Proteins by Chemical Ligation. <i>Ann. Rev. Biochem.</i> 69, 923-960.
	CCK	Sole, N. A., and Barany, G. (1992) Optimization of solid-phase synthesis of [Ala ⁸]-Dynorphin A. <i>J. Org. Chem.</i> 57, 5399-5403.
	CCL	Melkko et al. "Encoded self-assembling chemical libraries" <i>Nature Biotechnology</i> , Vol. 22, No. 5, May 2004, pp. 568-574.
	CCM	Pillai et al., "A Novel and Flexible Method for Preparation of Peptide Homo and Heterodimers Functionalized with Affinity Probes, Reporter Molecules and Chelating Ligands" Poster Presentation at the Third International and Twenty-Eight European Peptide Symposium, Prague, Czech Republic, September 5-10, 2004.
	CAA	
EXAMINER		DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.